

**Applicant:** Humphris et al.  
**Application No.:** 10/564,598

**REMARKS**

Claims 42 and 49 read on the elected species illustrated in FIG. 7 and depend from allowable claims 45 and 49, respectively. Applicant requests rejoinder of all withdrawn claims.

This supplemental reply amends claims in the same manner as in Applicant's March 9, 2009 reply but also adds amendment of claims 20, 22, and 23 to recite "force generator." Claim 23 was changed to recite "force generator" in previous replies but the change was not accompanied by amendment markings or a "currently amended" status identifier. For clarity, the amendment to claim 23 is made herein with markings and the status identifier. The text following the "Examiner Interview" section, below, is identical to Applicant's March 9, 2009 reply. The Conclusion section is modified to request allowance of all pending claims

After the foregoing Amendment, claims 1 – 6, 12 – 23, 25, 28 – 29, 31 – 38, 40 – 43, and 45 – 50 are currently pending in this application. Claims 8, 11, 26, 39, and 44 are cancelled without prejudice. Claims 7, 9 – 10, 24, 27 and 30 were previously canceled without prejudice. Claims 6, 14, 16, 20, 22, 23, 29, 34, 40 – 43, 45, and 46 are amended. New claims 47 – 50 are added. The amendments are supported by the originally filed specification. Applicant submits that no new matter has been introduced into the application by these amendments.

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The amendment to claim 14 conforms to the previously considered amendment to claim 16. The amendment to claim 29 addresses punctuation.

Claims 45 and 46 are separately amended to be independent and include the elements of claim 39. Claim 39 is cancelled. Claims 40 – 43 are amended to depend from claim 45, rather than claim 39. And new claims 47 – 50 are modeled after claims 40 – 43 but depend from claim 46.

**Examiner Interview**

Applicant's representative, undersigned, and the Examiner discussed the April 14, 2009 advisory action by telephone on May 14, 2009. Applicant thanks the Examiner for the discussion. Applicant provides a summary of the discussion below and welcomes any clarification or correction.

Applicant's representative pointed out that support for claims 42 and 49 can be found in the pre-grant publication of this application (20070024295) at paragraphs [0065] – [0066], which describe FIGS. 7 and 8. Based on the discussion of claims 42 and 49, Applicant's representative and the Examiner agreed that i) the claims are supported and also that ii) the 35 U.S.C. § 112, second paragraph rejection of claim 42 was addressed and overcome. The Examiner requested that Applicant indicate that claims 42 and 49 read on the elected species illustrated in FIG. 7. The indication is made in the opening section of the Remarks, immediately above.

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Applicant's representative and the Examiner discussed rejoinder of withdrawn claims. The Examiner pointed out that the Advisory Action indicates that withdrawn claims 25, 32, and 33 are listed among claims that "would be allowable if submitted in a separate, timely filed amendment...." Applicant's representative pointed out that withdrawn claims 20, 22, and 23 depend from allowable claim 16. Claims 2 and 3, which depend from allowable claims 1 and 6, were also mentioned. Applicant's representative inquired regarding a request for rejoinder of these claims and the Examiner suggested that this request be made. The request is made in the opening section of the Remarks, immediately above.

**Claim Rejections - 35 USC §112, first paragraph – written description**

Claims 8 and 26 are cancelled and their rejection is moot.

Claim 15 was rejected for the phrase "one micrometer" without further comment. Applicant's representative, undersigned, contacted the Examiner on January 22, 2009 by telephone to clarify the rejection. The Examiner stated that the rejection was a new matter rejection. In a follow up second telephone conversation, the Examiner stated that the rejection would be withdrawn and a January 27, 2009 Interview Summary states the same. Applicant thanks the Examiner for the interviews.

Claim 39 is rejected but it is cancelled and the rejection is moot.

**Claim Rejections - 35 USC §112, first paragraph – enablement**

Claims 39 – 46 are rejected for lacking enabling disclosure for the phrase “proportional to the spring constant of the beam and the topography of the sample.” Applicant cancelled claims 39 and 44 and their rejection is moot. Claims 45 and 46 are re-written to include the limitation of claim 39. However, claims 45 and 46 recite “proportional to the spring constant of the beam and the degree of beam bending,” which is supported by the originally filed specification. See paragraph [0013] of this application’s pre-grant publication, U.S. 20070024295. Claim 34 is also amended to recite “a bending force that is proportional to the spring constant of the beam and the the degree of beam bending.”

Claims 40 – 43 depend from and include the elements of claim 45. Claims 47 – 50 depend from and include the elements of claim 46.

**Claim Rejections - 35 USC §112, second paragraph**

Claim 6 is rejected and the Action states that the “tip and beam are unconnected elements.” Claims 1 – 4, 8, and 11 – 14 depend from claim 6 and are rejected on the same basis. Claim 11 is cancelled and its rejection is moot. Claim 6 is amended to recite “the beam connected to the tip” and Applicant believes that the rejection is overcome. Applicant believes that the rejection of dependent claims 1 – 4, 8, and 12 – 14 is overcome by the same amendment.

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Claim 16 is rejected for reciting “a probe detection mechanism” twice. Claim 16 is amended to recite “the probe detection mechanism” at the second instance of “probe detection mechanism.” Claims 17 – 19, 21, 26, and 28 depend from claim 16 and are rejected on the same basis. Applicant believes that the rejection of claims 17 – 19, 21, 26, and 28 is overcome by the same amendment.

Applicant believes the amendment to the phrase from claim 39, which now appears in claim 45, obviates the rejection of claims 42 and 43. Claim 44 is cancelled and its rejection is moot.

The Examiner noted that claims 20 and 22, which are withdrawn, recite “force generating means,” rather than “force generator” as recited in claim 16. Applicant will address withdrawn claims and possible rejoinder upon a notice of allowance.

**Claim Rejections - 35 USC §103(a)**

***Erie and Hough or Minne***

The Action rejects claims 6, 12, 13, 14, and 15 as obvious over U.S. patent No. 6,330,824 (Erie) in view of U.S. pre-grant application publication No. 2005/0029450 (Hough) or U.S. patent No. 6,886,395 (Minne). By way of the foregoing amendment, the elements of claim 11 are incorporated into claim 6. Claims 12, 13, 14, and 15 depend from and include all of the elements of claim 6.

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Applicant believes the rejection of claims 6, 12, 13, 14, and 15 as obvious over Erie in view of Hough or Minne is overcome and requests withdrawal of the same.

***Erie***

The Action rejects claims 39 – 43 as obvious over Erie. The Action, however, indicated that claims 45 and 46 would be allowable if re-written to include the limitations of their base claim. By way of the foregoing amendment, claims 45 and 46 are re-written to be independent and include the elements of claim 39. Claims 40 – 43 are amended to depend from claim 45. New claims 47 – 50 are modeled after claims 40 – 43 but the new claims depend from claim 46. Applicant believes that the rejection of claims 39 – 43 over Erie is overcome and respectfully request withdrawal of the same.

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**Conclusion**

If the Examiner believes that any additional matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicant respectfully submits that the present application, including all pending claims, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Humphris et al.

By /Douglas J. Bucklin/  
Douglas J. Bucklin  
Registration No. 51,208

Volpe and Koenig, P.C.  
United Plaza, Suite 1600  
30 South 17th Street  
Philadelphia, PA 19103  
Telephone: (215) 568-6400  
Facsimile: (215) 568-6499

DJB/dmp  
Enclosures